

REMARKS

Claims 1-20 are pending
Claims 1-20 stand rejected.

I. Wrobleski in view of Mead

Independent claim 1 is directed to a method for distorting a recording of projected images. The claim recites that without varying the frame frequency of the projector, an interference is posed on the projected images at a frame rate frequency that renders the interference imperceptible to a human viewer. The claim further recites that a difference between the interference frame rate frequency and the frame frequency of the recording is perceptible to a human. Independent claim 11 is directed to a method for operating a motion picture projector. This claim recites the step of determining a recording device frame frequency, and blanking a projected image at a humanly imperceptible blanking frame rate frequency. The claim further recites that a difference between the recording device frame frequency and the projector blanking frame frequency is a humanly perceptible frame frequency.

The examiner has rejected the claims over Wrobleski in view of Mead. According to the Office Action, regarding claim 1, Wrobleski teaches posing an interference on the projected images without varying the frame frequency of the projector, where the difference between the interference frequency and the recording frame frequency is perceptible to a human. The Office Action further states that Wrobleski does not teach that the interference is at a frame rate frequency, rather than at a frequency that renders the interference imperceptible and that Wrobleski does not teach that the difference between the interference frame rate frequency and the recording frame frequency is perceptible. According to the Office Action, Mead teaches that

the interference is at a frame rate frequency that renders the interference imperceptible with the difference between the interference frame rate frequency and the recording frame frequency being perceptible. The Office Action states there is a motivation to combine “because the varying frame rate distortion device of Mead can be swapped in place of the infra red projector of Wrobleski.”

The Office Action fails to state a prima facie rejection at least because the Office Action has failed to state a motivation to combine Wrobleski in view of Mead in the manner suggested. Swapping the varying frame rate distortion device of Mead in place of the infra red projector of Wrobleski would render Wrobleski inoperative for its intended purpose. Also, the combination does not teach the elements of the independent claims.

Wrobleski teaches a single methodology for combating video piracy by implementing an infra red projector to project an infra red image on a visual screen. See Figs. 1 and 2. Wrobleski notes that “this infra red image will not be visible to the audience in the theatre.” Column 2, line 10. It further states that “a recording of the visual image by a video camcorder sensitive to the infra red spectrum will be distorted beyond use.” Column 2, 10-14. In another embodiment, the projected infra red image is focused onto the screen with a message indicating the date and source of the recording. Column 2, 14-16. Wrobleski therefore takes advantage of the camcorder’s sensitivity to the infra red spectrum and the insensitivity of the human eye to infra red images.

Mead on the other hand combats piracy by attempting to disrupt synchronization between the video projector and the pirate’s video recorder. Mead teaches accomplishing this disruption

by varying the frame rate of the projected image pseudo randomly where the variations in the range's frame rate will be small enough to be substantially imperceptible to a human observer.

Column 2, lines 46 - 65. According to Mead, this variation will prevent "a potential video pirate from synchronizing a camcorder to the display of the image sequence." Further, Mead states that "[t]he resulting video recorded from the display of the image sequence lacks vertical synchronization, and hence, is unwatchable." Column 4, lines 24-28. Wrobleski and Mead, therefore, teach two entirely different methods for attacking video piracy. Wrobleski depends upon a second projector projecting an image outside of the human spectrum, i.e., "infra red," while Mead teaches attempting to disrupt synchronization between the projected image and the recording camcorder.

The Office Action states no motivation found in the references themselves to modify one reference in view of the other. The Office Action states that it would have been obvious because the varying frame rate distortion device of Mead can be swapped for the infra red projector of Wrobleski. But there is no reason to make this substitution, as Wrobleski depends upon projecting an infra red image, while Mead depends upon disrupting the synchronization between the projector and the recording camcorder. Wrobleski depends upon the operation of the camcorder to record in the infra red spectrum, while Mead attempts to disrupt operation of the camcorder. The two references teach in different directions, and the Office Action fails to cite to any portion of either reference for the proposed modification.

Furthermore, the rejection of claim 1, and all its dependent claims (2-5 and 10) rely upon a misapprehension of the limitations for claim 1. Claim 1 recites that without varying the frame

frequency of the projector, an interference is posed on the projected images at a frame rate frequency that renders the interference imperceptible to a human viewer. Claim 1, therefore, recites imposing an interference having a frame rate frequency. In analyzing claim 1, the Office Action states the limitation as follows: “without varying the frame frequency of the projector, imposing an interference on the projected images at a frequency that renders the interference imperceptible to a human viewer.” Office Action at 2. The Office Action has eliminated the limitation “frame rate” which modifies “frequency” in the limitation respecting the interference. Based upon reading the term frequency without the limitation of frame rate, the Office Action relies upon the portion of Wrobleski which teaches projecting an infra red image, which is assumed to have a frequency. However, Wrobleski says nothing about the frame rate frequency of the infra red projector. Furthermore, it is the spectrum of the infra red image and the insensitivity of the infra red to the human eye which renders the image imperceptible to human viewer, completely independent of the frame rate frequency of the projector which is the limitation recited in claim 1. Thus, Wrobleski does not teach the limitations of claim 1.

Likewise, Mead does not teach projecting an interference at a frame rate frequency imperceptible to a human viewer. As stated previously, Mead teaches varying the frame frequency of the projector pseudo randomly. There will be no purpose in varying the frame rate frequency of the infra red projector for Wrobleski with an objective of destroying the synchronization between the projected image and the camcorder. Likewise, the cited portions of the references for rejecting the claims depending from the independent claim 1 do not teach the limitations and the rejection should be withdrawn.

Claim 11 recites blanking the projected image at a humanly imperceptible blanking frequency where the difference between the projected frame frequency and the blanking frequency is humanly perceptible. The Office Action has recited Wroblewski, which does not deal with blanking at all, in combination with Mead to reject this claim. As stated previously, Wroblewski is solely concerned with projecting an infra red image from a second projector. The second projector in Wroblewski has no impact on the projector frequency in Wroblewski. On the other hand, Mead teaches pseudo randomly varying the projector frequency within a limited range. Mead is not concerned with a blanking rate frequency; therefore, the combination does not teach the limitations of claim 11.

II. Wroblewski in view of Mead and in further view of Sato

The Office has rejected claims 7, 8, 12-15 and 18 under Wroblewski in view of Mead in further view of Sato. These rejections fail to state a prima facie case for obviousness for the reasons stated with respect to the combination of Wroblewski and Mead as set forth above. In addition, the Office Action, at page 7, states that it would have been obvious at the time of the invention to have combined separating the image into a plurality of colors and modulating at least one color with the method resulting from the combination of Wroblewski and Mead. The Office Action, however, does not discuss why such combination would have been desirable at the time of the invention. The treatments of these three disparate references in the Office Action assumes that any technique addressed to inhibiting the ability to make illegal copies can be combined with any other technique and that such a motivation exists. This is insufficient to state a prima facie case of obviousness.

Furthermore, the Office Action states that Sato teaches separating projected images into a plurality of colors, citing Column 6, lines 5-8. The cited lines do not address the separation of colors into a plurality of colors, instead merely stating that the video signal comprises a luminance signal and a color signal at respective outputs:

Video signal reproducing device 1 generates from a record medium loaded therein a luminance signal Y and a color signal C as respective outputs on separate output terminals.

As can be seen, the cited portion does not teach separating the image into a plurality of colors and merely teaches one color signal in combination with a luminance signal, which is not a limitation in the invention. Therefore, the combination, even if it could be made, does not teach the limitations of claims 7 and 8. Likewise claims 12-15 and 18 are patentable for at least the reasons stated above.

III. Wrobleski in view of Mead and Sato and further in view of Kahn.

According to the Office Action, Kahn teaches the preventing of copying data by imposing inaudible noises into the data that will be picked up by the recorder but not by a human ear. From this teaching, the Office Action applies Kahn to “modifying the data in any method that would be recognized by a recording device, but not by the human senses.” Office Action at 11. This is a broadening of Kahn without any support.

Furthermore, Wrobleski, Mead and Sato cannot be combined as per the previous discussion, nor will the combination teach the limitations of these claims. There is no teaching of color separators, there is no teaching of time multiplexers, and there is simply no teachings that warrant rejection of claims 6, 9, 16, 17, 19 and 20.

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For all the foregoing reasons, applicant requests withdrawal of the rejection in all respects and requests allowance of the claims.

If, however, for any reason the Examiner does not believe that such can be taken at this time, it is respectfully requested that he/she telephone applicant's attorney at (973) 596-4500 in order to overcome any additional objections which he might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 03-3839 therefor.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'V. McGeary', with a stylized flourish at the end.

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